

Listing of the Claims:

1. (Previously amended) A device for controlling the flow of fluid comprising:
  - a. a rotor having a rotor fluid communication means and a rotor load bearing surface which rotor load bearing surface sealably engages a stationary load bearing surface, said rotor capable of assuming a first position and a second position by rotation;
  - b. at least one stator having said stationary load bearing surface having stator fluid communication means, said stationary load bearing surface sealably engaging said rotor load bearing surface and permitting rotation of said rotor with respect to said stator; at least one of said rotor bearing surface and said stationary load bearing surface having a diamond-like carbon-silica coating;
  - c. compression means for holding said at least one stator and rotor with said rotor load bearing surface and stationary load bearing surface sealably engaged, and said diamond-like carbon-silica coating providing a low friction and increased hardness allowing repeated movement between said first and second positions.
2. (Previously amended) The device of claim 1 wherein said compression means is a housing, said housing having a chamber for receiving said rotor and a means for securing said at least one stator.
3. (Previously amended) The device of claim 1 wherein said stator fluid communication means is at least one stator opening in said stator.
4. (Original) The device of claim 1 wherein said rotor fluid communication means comprises at least one opening.
5. (Original) The device of claim 3 wherein said rotor fluid communication means comprises a channel for placing two or more stator openings in fluid communication.
6. (Previously amended) The device of claim 1 wherein said diamond-like carbon-silica

coating is 40-90% carbon, 20-40% hydrogen and 0.01 to 5% silica carbon.

7. (Currently Amended) The device of claim 6 wherein said diamond like carbon-silica coating is comprises a DLC coating.
8. (Currently Amended) The device of claim 1 wherein at least one of said rotor and stator is comprised of a material selected from the group consisting of polyetheretherketone, tetrafluoroethelene, combinations of polyetheretherketone and tetrafluoroethelene, stainless steel, titanium and aluminum.
9. (Original) The device of claim 8 wherein said combination of polyetheretherketone and tetrafluoroethelene has a percentage of 50 to 90 percent polyetheretherketone and a percentage of 10 to 50 percent tetrafluoroethelene.
10. (Original) The device of claim 8 wherein said combination of polyetheretherketone and tetrafluoroethelene has a percentage of 60 to 80 percent polyetheretherketone and a percentage of 20 to 40 percent tetrafluoroethelene.
11. (Previously amended) The device of claim 8 wherein one of said rotor and stator is comprised of stainless steel, titanium and aluminum and the other of said rotor and stator is comprised of polyetheretherketone and tetrafluoroethelene and combinations of polyetheretherketone and tetrafluoroethelene, wherein whichever of said rotor and stator is comprised of stainless steel, titanium and aluminum further has said diamond-like carbon silica coating.
12. (Previously amended) A method of controlling the flow of fluid comprising the steps of:  
providing a device having a rotor, at least one stator and compression means wherein said rotor has a rotor fluid communication means and a rotor load bearing surface which rotor load bearing surface sealably engages a stationary load bearing surface, said rotor capable of assuming a first position and a second position by rotation;

and said at least one stator has said stationary load bearing surface having stator fluid communication means, said stationary load bearing surface sealably engaging said rotor load bearing surface and permitting rotation of said rotor with respect to said stator; at least one of said rotor bearing surface and said stationary load bearing surface having a diamond like carbon-silica coating; and said compression means for holding said at least one stator and rotor with said rotor load bearing surface and stationary load bearing surface sealably engaged, and said diamond-like carbon-silica coating providing a low friction and increased hardness allowing repeated movement between said first and second positions;

rotating said rotor from one of said first position and said second position to the other position, to control the flow of fluid.

13. (Previously amended) The method of claim 12 wherein said compression means is a housing, said housing having a chamber for receiving said rotor and means for securing said at least one stator.
14. (Previously amended) The method of claim 12 wherein said stator fluid communication means is at least one stator opening in said stator.
15. (Original) The method of claim 12 wherein said rotor fluid communication means comprises at least one opening.
16. (Original) The method of claim 14 wherein said rotor fluid communication means comprises a channel for placing two or more stator openings in fluid communication.
17. (Previously amended) The method of claim 12 wherein said diamond-like carbon-silica coating is 40-90% carbon, 20-40% hydrogen and 0.01 to 5% silica carbon.
18. (Currently amended) The method of claim 17 wherein said diamond-like carbon-silica coating is comprises a DLC coating.

19. (Currently amended) The method of claim 12 wherein at least one of said rotor and stator is comprised of a material selected from the group consisting of polyetheretherketone, tetrafluoroethelene, combinations of polyetheretherketone and tetrafluoroethelene, stainless steel, titanium and aluminum.
20. (Original) The method of claim 19 wherein said combination of polyetheretherketone and tetrafluoroethelene has a percentage of 50 to 90 percent polyetheretherketone and a percentage of 10 to 50 percent tetrafluoroethelene.
21. (Original) The method of claim 19 wherein said combination of polyetheretherketone and tetrafluoroethelene has a percentage of 60 to 80 percent polyetheretherketone and a percentage of 20 to 40 percent tetrafluoroethelene.
22. (Previously amended) The method of claim 19 wherein one of said rotor and stator is comprised of stainless steel, titanium and aluminum and the other of said rotor and stator is comprised of polyetheretherketone and tetrafluoroethelene and combinations of polyetheretherketone and tetrafluoroethelene, wherein whichever of said rotor and stator is comprised of stainless steel, titanium and aluminum further has said diamond-like carbon silica coating.
23. (Previously amended) The device of claim 1, wherein said rotor is capable of assuming more than two positions by rotation.